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INTERNATIONAL BULLETIN OF PLANT PROTECTION

DISCOVERIES AND CURRENT EVENTS *

Algeria: Swarms of the Desert Locust *(Schistocerca gregaria)* (1).

On 1 November 1929 a swarm of red locusts was reported at Timimoun coming from the south in the direction of Debdou Barka ; it flew away in a westerly direction on the 2nd. On the 5th a swarm was reported at Oued-bou-Ali 150 km N.E. of El-Goléa, and on the 6th another at the post and palm plantation to the N. W. of Djanet. On the 9th a medium sized swarm was reported at Bre-Erg-Cherif, S.W. of Blider Amor (Ghardaïa), coming from Fort Lallemand and Ouargla, and on the 11th another at Ouargla. On the 20th a swarm of considerable size came from Reggan and alighted on the plantations at Adrar. On the 24th a large swarm spent the night at Oued-ben-Nsour and at Maader-ben-Renel 160 km S. E. of Djelfa ; it then flew in the direction of the post of Ouled-Djellal. On the 25th a swarm alighted on the post and palm plantation of Djanet. On the 24th and 26th small swarms were reported in the Caïdats of Deldone-Barka and Taghaïzi-Calmine (Timimoun). On the 27th a large migration of locusts was observed at Menouarar coming from the N.E. and flying towards the S.W. On the same day a small swarm flying towards the north-was reported at Meridja.

On 2 December 1929 a swarm was reported at Ghardaïa and another at Bou-Saada. On the 11th a swarm was reported at Asla 60 km N.E. of Aïn-Sefra, another at Béni-Ounif and still another at El-Goléa. On the 13th a swarm was reported at Messad ; on the 14th one at Timimoun and on the 17th another at Daya Tilghempt, 95 km S.S.E. of Laghouat. On the 21st a swarm was reported at Béni-Ounif ; on the 23rd another at Caida-el-Aouguerrout (El-Goléa) ; on the 24th another in the Benisguen oasis (Ghardaïa). On the 26th swarms were reported at El-Baadj and at Aouidja, 25 km W. of El-Arichia.

On 10 January 1930 large swarms were reported at Martimprey-du Kiss and Port-Say. On the 12th swarms were observed on the Msvida des Tohata ' douar ', at Merzaïga, and on the Achache and Béni Ouassene ' douars ' ; on the 13th at Babelassa, at Meridja and at El-Arichia. On the 14th a swarm flew over the ' douars ' of Zaouiet el Mira and Souahlia. On the 15th large swarms were observed at Ouallen (El-Goléa) in the region of Gemar (El-Oued). Swarms were reported on the 16th at Meridja, oh the 17th at Négrine, on the 18th at Meridja, at Oumache, in the region of Saada 30 km. S.E. of Biskra and above the region of Sidi Yahia of the ' douar ' of Khémis (Mixed Commune of Sebdou). On the 9th a swarm passed over Biskra and another over the region of Daya Tibrempt. On the 20th one

* In this, as in the next chapter, the countries are arranged in French alphabetical order.

(1) Communication from the Gouvernement Général de l'Algérie to the International Institute of Agriculture.

was observed over the ' douar ' of Taberdga, others at Tranis, at El-Outaya and above the ' douar ' of Oulache. On the 21st locusts flew over the ' douars ' of Sonahlia, Zaouiet-Mira and Mechounèche (Mixed Commune of Aurès) and others were sighted at Négrine and 4 km to the south of Ghardaïa. On the 22nd swarms were observed at Filiache, Tranis, El-Outaya and Guentis ; on the 23rd over the ' douar ' of Souahlia on the 24th over the ' douars ' of Béni Ménir and Souahlia (Mixed Commune of Nédromah) ; the same day 36 km to the S.W. of Ourlal, at Bornili and at Aïn-Sefra. On the 25th a swarm was reported 25 km from Ouled Djellal. On the 26th swarms were observed at El-Outaya and at Aïn-Sefra, on the 27th at Aïn Mezil, ' douar ' Taberdga (Mixed Commune of Khenchela), at El-Outaya and a large one over the Bitam Doukal ' douar ' (Mixed Commune of Barika) ; on the 28th in the vicinity of Négrine (Mixed Commune of Tébessa) and at the ' douar ' of El-Kantara ; on the 29th at Maader Fhamba (Biskra region), in the vicinity of Négrine and at Colomb-Béchar ; on the 30th in the region of Msirda Tohata (Mixed Commune of Marnia) ; and on the 31st at the Guedila and Tuberdga ' douars '.

On 3 February a swarm was observed at the El-Outaya and Bitam ' douars ' (Mixed Commune of Barika), at Béni-Ounif and at Tolga. On the 5th a swarm left Nédromah in the direction of M'Sirda and another was reported in the region at Tabardga and at Ouled Djellal. On the 9th there was a swarm 105 km to the S.S.E. of Laghouat. On the 10th a swarm was reported at Ras El Ma, 7 km from Berkane and at Biskra. On the 11th a swarm was observed in the valley of Oued El Ara (Mixed Commune of Khenchela), one towards Béni-Snassen and another at the Oulache ' douar '. On the 12th a swarm alighted in the region of Oued Djellal, and another was observed at Hammada Oum es Sebaa and at the Kinimet and Mechounèche ' douars '. On the 15th a swarm was reported in the region of Kefel Gueta and over Colomb-Béchar, also one 25 km to the S.S.E. of Géryville. On the 15th a swarm was observed at Ouled bou Abdessied, at the Kinimet ' douar ' (Mixed Commune of Aurès) and over the palm plantation of Takoumit and Bouanane. On the 16th there was a swarm 40 km south of the Abadla post. On the 18th a swarm was reported at Casbah Boughriba and at Bezzez. On the 19th a swarm was reported 15 km S. of Béni-Ounif, at Saïda and 4 km N. of Aïn Ben Noui. On the 20th there was a swarm 25 km from Laghouat. On the 21st a swarm was observed at El Ouedj and eggs were noted 20 km N.E. of Oued Djellal. On the 22nd there was a swarm in the Triffas and one alighted to the south of Ksar Taoniala. On the 23rd copulating locusts were observed over several kilometres between El Amri and Hona. Eggs were noted 7 km to the S. of El Amri and in the region to the S. of Djediet Oued Onzeam. On the 25th egg laying was reported 3 km to the S. W. of Saïda. On the 27th a large swarm was reported in the region north of the post of Oued Djellal and egg laying in the region to the S. E. of the post, also a swarm over the post of Laghouat. On the 28th a swarm was reported at the El-Outaya ' douar ' (Mixed Commune of Aïn Touta).

England and Wales : Plant parasitic Bacteria and Fungi not previously recorded for these Countries (1).

The following is a list of plant parasitic bacteria and fungi that have been encountered in England and Wales during the past few years which are believed not to have been recorded previously in these countries. The two first are species new to science :—

(1) Communication from the Ministry of Agriculture and Fisheries, London, official correspondent of the Institute.

Botrytis polyblastis Dowson ; on Narcissus.
Actinomyces tumuli Millard and Beeley ; on Mangold.
Ascochyta Brassicae Thüm. ; on Cabbage. Previously recorded for Northern Ireland.
Ascochyta Fabae Speg. ; on Broad Bean.
Bacterium Delphinii Bryan ; on Delphinium.
Botrytis narcissicola Kleb. ; on Narcissus.
Cercospora Fabae Fautr. ; on Broad Bean.
Penicillium Gladioli McCull. & Thom. ; on Gladiolus.
Phacidiella discolor (Mout. & Sacc.) Poteb. ; on Apple and Pear.
Phyllosticta Cucurbitacearum Sacc. ; on Cucumber.
Phytophthora Richardiae Buism. ; on Arum (Richardia).
Plectodiscella veneta Burkh. ; on Raspberry.
Pseudodiscosia Dianthi Hösterm. & Laub. ; on Carnation.
Rhytisma symmetricum (Tul.) Müll. ; on Willow.
Sclerotinia americana Nort. & Ezek. ; on Peach fruit imported from U. S. A. and Canada.
Sclerotinia Crataegi Magn. ; on Hawthorn.
Sclerotinia Cydoniae Schell. ; on Quince.
Sclerotium Tuliparum Kleb. ; on Tulip and Iris.
Sclerotium Gladioli Massey ; on Gladiolus.
Septoria Azaleae Vogl. ; on Azalea.
Septoria Gladioli Pass. ; on Gladiolus.
Septoria Leucanthemi Sacc. & Speg. ; on Shasta Daisy.
Sporidesmium putrefaciens Fuck. ; on Mangold and Beet. Parasitism perhaps doubtful.
Verticillium Dahliae Kleb. ; on Raspberry.
Zopfia rhizophila Rabenh. ; on Asparagus. Parasitism perhaps doubtful.

Egypt : Occurrence and Movement of the Desert Locust (*Schistocerca gregaria*) (1).

During 1929 a series of three successive locust invasions took place in Egypt.

(1) The first invasion occurred exceptionally early in January. Dense swarms of sexually immature locusts crossed the Eastern Frontiers on the 2nd and again on the 20th. In either case the swarms returned to the East shortly after their arrival.

(2) The second invasion, started on the 30th March, 1929, when a big swarm of sexually immature locusts was reported from Ghobbet el Bous (60 kilometres South of Suez), coming from the East and crossed the Gulf of Suez. The swarm has apparently split into two smaller swarms, one of which advanced Northwards and penetrated into the cultivated zone North of Suez. The other went Westwards and disappeared in the Eastern desert. The latter were probably reinforced by others from the East crossing the Red Sea opposite Mersa Tholmet on the 17th April. These went Southwest towards the Nile valley and invaded several places in Upper Egypt (Qena and Aswan provinces), during the 2nd half of April and the first fortnight of May. Part of the swarm crossed the River Nile and appeared in Kharga oasis.

(1) Communication from Mr. E. BALLARD, Chief Plant Pathologist, Plant Protection Section, Ministry of Agriculture, Cairo, Egypt, to the International Institute of Agriculture.

The greater part of the swarms were destroyed by flame- throwers and collecting. Only very insignificant damage has been caused to the cultivation. The invasion came to an end on the 12th May, 1929.

Many parts of the Eastern desert were scouted during April and May in search of locusts and locust breeding grounds. The dryness of the valleys of the Eastern desert and the prompt destruction of the swarms allowed no locusts to breed in the Eastern desert or in the Nile valley.

(3) The first intimations of a third wave of invasion were received on the 13th October, 1929, when Northward movements, in the Sudan, of large swarms of locusts were reported by the Sudan Government. Prompt preparations were made for fighting the invading swarms in the districts of El Derr immediately they enter the Egyptian boundaries. Fighting units were sent to El Derr equipped with flame-throwers and they arrived before the arrival of the Sudan locust swarms.

The swarms crossed the Egyptian boundaries on the 30th October, 1929 at Halfa. Locusts invading Egypt from the South at that time of the year are not unusual, but Egypt was at the same time exceptionally invaded by swarms coming from the East and penetrating into Sinai. This unexpected invasion from the East necessitated sending fighting units into Sinai and the distribution of several brigades in Suez and long the Suez Canal, equipped with flame-throwers.

The swarms which came from the South consisted of sexually immature adults of both migratory and solitary forms. The solitary individuals which were placed under observation in the breeding cages have attained sexual maturity, paired and laid.

On their arrival the swarms dispersed in many localities in the districts of El Derr and Aswan (Upper Egypt). They did not feed and were successfully prevented from advancing further North by destroying them with flame-throwers and hand picking.

The swarms which come from the East penetrated into Sinai and were unusually active. They dispersed in the valleys when their greater part was destroyed by flame-throwers. Only two swarms were able to cross the Gulf of Suez and penetrate into the Eastern desert. The first swarm was discovered in Wadi Belib (Eastern desert), and was destroyed by flame-throwers. The second invaded the cultivated zone North of Suez, part returned Eastwards and part advanced Westwards re-appearing in January, 1930 in Sharkia province. This second swarm was very dense and was completely destroyed by flame-throwers.

Amount of damage. — With the exception of Feiran oasis (Sinai) where the vegetation was completely destroyed and el Ganayen, North of Suez, where the vegetation of ¼ acre was damaged, no damage of any importance has been caused.

Campaign. — The campaign was run by the Plant Protection Section of the Ministry of Agriculture.

24 Brigades worked in fighting locusts and in very serious cases corvée labourers were recruited to collect them in the early morning.

The quantity of locusts which were destroyed was enormous. So far the quantity reported is 28293 kilogs excluding the other big quantities which were not estimated and which are believed to be not less than 15 thousand kilogs.

***

There has been a continuous movement of locusts (*Schistocerca gregaria*) in the Sinai and the Canal Zone during January, 1930.

Swarms have been reported from the following places :—

A. Sinai:—

2.I.30. Swarms of red locusts ; 100 metres × 20 metres ; settled in Wadi Tibit, East of el Ter ; destroyed by flame-throwers.

2.I.30. Large numbers were found dead near the Sea Shore at Abu Zeneima.

2.I.30. A big swarm of red locusts ; 1 kilometre × 100 metres appeared at el Magdhaba, S. E. of el Arish ; coming from the West, went eastwards on the same date.

5.I.30. Very dense swarm ; 10 × 2 kilometres appeared at Kuntilla ; split into :—

5.I.30. First swarm — 4 × 2 kilometres ; settled in Wadi el Agheidera, South of Kuntilla ; destroyed by flame-throwers.

6.I.30. Second swarm — settled in Wadi Gerafi, North-east of Kuntilla ; destroyed by flame-throwers.

10.I.30. Third swarm — flew North-East ; appeared in Rafa ; greater part crossed into Palestine ; the rest kept moving in the vicinity of Rafa until the 18th. On the 20th, heaps of locusts were found dead South-West of Rafa.

Their death was due to the fall of heavy rains and the sand storms.

13.I.30. Fourth swarm — flew S. W. and was reported at el Themed.

17.I.30. Very dense swarms appeared at el Kossaima ; next day flew off Northwards.

21.I.30. Above swarm appeared between Hassana and W. Harrab.

23.I.30. Same swarm found in W. Harrab and G. el Halal ; reported covering an area of 6 × 2 kilometres ; 1000 kilograms were destroyed by flame-throwers.

23.I.30. Big swarm found near Kuntilla ; about 900 kilograms were destroyed by flame-throwers.

26.I.30. Very big swarm ; red ; coming from East ; going North-West appeared at Bir el Ahfan, South of el Arish ; 3000 kilograms destroyed by flame-throwers rest about ⅓ of the swarm flew North-East.

28.I.30. Big swarm reported from Ras el Nagb, settling partly in W. Harab. North-East of Akabaand partly within Egyptian boundaries ; went South-East.

30.I.30. 1) Big swarm 10 × 2 kilometres ; coming from East going West ; reported from el Kossaima.

2) Swarm 1 × 11 kilometres coming from West going East passed over Nekhel.

31.I.30. 1) Red swarm 3 × 1 kilometres coming from East going South-West ; reported from Kuntilla.

2) Swarms settled at Ain el Gedeirat, South East of Kossaima ; 800 kilos destroyed by flame-throwers.

3) Big swarm reported from Ras el Nagb passed over Wadi Khadakhid.

4) Swarm reported from Magdhaba.

5) Swarm of sexually mature (yellow) locusts reported from Mazar ; copulation observed.

B. Canal Zone:—

11.I.30. Swarm which disappeared in Easter desert on the 31st. December, 1929 appeared in Gharbia Province ; settled in cultivation East of Ismailia Canal ; flew westwards to Gaafaria and returned North-East on the same date.

15.I.30. Above swarms found settling between Ballah and Kantara settling on Casuarina trees ; palms, Acacia, and Tamarisk bushes covering an area of 3 × ½ kilometres. Fighting lasted 10 days ; 17000 kilos were destroyed by flame-throwers ; 380 corvée labourers were recruited from neighbouring villages.

attacked. Certain weed grasses, as Rapoko (*Eleusine indica*) and Kokoma (*Rottboellia exaltata*) among these crops, have been devoured completely.

Locust Poison (Sodium Arsenite, solution 10.5 pounds per gallon) was sold by the Government to farmers at reduced rates (viz. 2/6 d. per gallon)[1] and Spray Pumps were issued on loan through the nearest Magistrate's office or Police Camp.

The Locust Poison was diluted 1 : 200 for use. Maize crops were protected by spraying the surrounding infested grass-lands, by trenching and by the use of poison bait. Small infested areas in growing crops were cleaned by hand or by baits. Arsenical Cattle Dips diluted 1 : 160 also proved excellent.

The outbreak has occurred at a critical period, as replanting with the long-maturing maize, usually grown, may not give a good yield, owing to the short growing season now remaining.

Tunisia: Swarms of the Desert Locust (*Schistocerca gregaria*) (1).

On 7 November 1929 locusts were reported in the region of Fort St. Pistor. On the 9th a large swarm was reported at Djenien flying from the S. W. towards the N.E. On the 19th a small swarm was observed 10 km from El Hamma de Gabès. On the 21st a large swarm several kilometres in extent and 500 m in depth was sighted 30 km west of Medenine. On the 22nd a swarm was reported to the West of Oum el Abbès. On the 22nd and 23rd three small swarms were observed flying in a south-easterly direction in the district 20-80 km South of Tatahouine.

On 3 December 1929 a swarm was reported at Tatahouine and on the 6th another at Foum-Tatahouine.

On 17 January 1930 a swarm was reported at Tozeur.

On 3 February a swarm was observed at Gafsa and others were reported on the 5th in the vicinity of Gabès.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Western Australia. — On the 19 December, 1929 (Ex. Co. No. 3536 ; Deptl. No. 2070/25) the Director of Agriculture has notified that Cape Tulip (*Homeria collina*) has been declared a noxious weed under " The Noxious Weed Act, 1924 ", within the boundaries of the Swan Road Board district. (*Government Gazette of Western Australia*, Perth, December 20, 1929, No. 60, p. 2790).

Austria (Republic of). — By the Federal Law No. 5 of 20 December 1929, which came into force on 1 February 1930, the Federal Minister of Agriculture and Forests is authorised, in co-operation with the Federal Minister of Finance, to adopt the necessary legislative measures to prevent the introduction of wart disease [*Synchytrium endobioticum*] into Federal territory by the control of the importation and transit of fresh potatoes and other objects capable of transmitting this disease.

The first part (§§ 1-5) of the law of 28 July 1925 is therewith repealed. (*Bundesgesetzblatt für die Republik Österreich*, Wien, 7. Jänner 1930, 3. Stück, S. 45).

Cirenaica. — See Italy.

Spain. — The ' Real orden ' No. 2364 of 11 December 1929, which establishes the regulations to be observed in the foreign export of various agricultural products from 1 January 1930, provides *inter alia* that oranges, tangerines, bitter oranges and lemons shall be specially treated so as to free them from scale insects and other animal or plant parasites ; that bananas from the Canary Islands (provinces of

(1) Communication from the Gouvernement Général de l'Algérie to the International Institute of Agriculture.

Santa Cruz de Tenerife and Las Palmas) must be free from every kind of insect ; that new potatoes from the Mediterranean coast of Spain and from the two above-mentioned provinces of the Canary Islands must be free from soil, from insects and their eggs and larvae and from cryptogamic diseases liable to attack crop plants in the importing country. (*Gaceta de Madrid*, Madrid, 29 diciembre 1929, año CCLXVIII, tomo IV, núm. 363, págs. 2030 a 2036).

*** By ' Real orden ' No. 135 of 12 March 1930, the provisions of the ' Real orden ' of 11 December 1929 will be postponed to 1 July 1930. (*Gaceta de Madrid*, Madrid, 15 marzo 1930, año CCLXIX, tomo I, núm. 74, pág. 1699).

Italy. — Royal Decree No. 116 of 16 January 1930 provides as follows : —

A Phytopathological Service has been started in Tripolitania and Cirenaica including special Plant Sanitary Offices, with headquarters at Tripoli and Bengasi which form sections of the local Agricultural Offices.

By Order of the Governor and on the recommendation of the Head of the Office of each Colony, Phytopathological Delegations depending from the respective Plant Sanitary Offices are appointed in the most important agricultural centres. Phytopathological Delegates give their services gratuitously.

The Phytopathological Delegations transmit news, information and observations concerning outbreaks of plant diseases and pests, also infected material for examination, to their head Office.

In addition to the trial of control methods, the care and disinfection of agricultural products and the biological study of plant diseases and pests the Plant Sanitary Offices are responsible for the periodical inspection of plant nurseries, horticultural establishments and seed preparation and selection establishments ; for the destruction of products infected with diseases and parasites dangerous to crops ; for plant sanitary inspection in ports and frontier stations ; for issuing permits for circulation in the Colony, foreign exportation and importation of plants, plant parts and seeds, in order to prevent the introduction or spread of dangerous plant diseases and pests.

Owner farmers and directors of plant nurseries, horticultural establishments and seed preparation and selection establishments in the Colony and all those who in any way take part in the commerce of plants, plant parts and seeds must be provided with a special authorisation from the Governor, who will grant it on the recommendation of the Plant Sanitary Office.

The Governor orders that products found infected as a result of the above-mentioned inspection may be sold or otherwise disposed of only after being effectually submitted to the prescribed methods of disinfection.

The presence of diseases or parasites which are dangerous or likely to spread may cause the temporary suspension or revocation of the authorisation on such advice being given by the Plant Sanitary Office.

In cases of dangerous infection the Plant Sanitary Office may order the partial or total destruction of the infected material.

No compensation is payable in general for trees, plantations or other products and materials which may be damaged or destroyed in the protection of crops against diseases or parasites which are dangerous or likely to spread.

The Governor may authorise special grants, under the provisions established by the regulations for the application of the present Decree, when destructive measures have been carried out on the land of small owner farmers or of small planters or farmers who themselves work the damaged land.

Owner farmers and directors of plant nurseries, horticultural establishments and

other authorised practices must, for the purposes of the supervision of the application of the present Decree, inform the Plant Sanitary Office, which will immediately inform the Governor, of any change of address or extension of nurseries or premises, also of any outbreak of diseases or pests or indications of their presence.

Neglect of such declaration is punishable by a fine not exceeding a thousand liras and may entail the suspension or revocation of the authorisation.

Officials of the Phytopathological Service have the right to enter any land in cultivation or intended for cultivation, and any premises for the storage, preparation or sale of plants, plant parts and seeds, also any establishments for seed preparation and selection, for purposes of ascertaining the presence of diseases or pests, and, when necessary, for purposes of the disinfection and care of plants, plant parts, seeds and materials which may be infected or suspected of infection, or for their destruction.

Such officials and their agents have the right of access also into all railway stations and docks, also on board steamships and into their warehouses, trucks and holds, in the execution of their duties, with the permission of and accompanied by the person in charge.

On the recommendation of the Governor and of the Plant Protection Committee formed by the Ministry of Agriculture and Forests, the Minister for the Colonies may order :—

(*a*) the suspension or submission to restrictions or special methods of the importation and transit in the Colony of plants or plant products suspected of infection ;

(*b*) the fixing of the ports and frontier stations by which living plants, plant parts, seeds and other plant products may be allowed to enter the Colony ;

(*c*) the prohibition or submission to restrictions or special methods of the exportation of plants, plant parts and seeds from territory of the Colony in which the presence of diseases or pests liable to spread has been ascertained, either to other parts of the Colony which are free from infection or to a foreign destination.

In a case of urgency the Governor is authorised to proclaim the prohibitory measures specified in paragraph (*c*) above, on condition that he immediately informs the Minister for the Colonies so that the order may be ratified.

The officials of the Phytopathological Service and the ports and frontier stations inspectors have the right :—

(*a*) to make compulsory the disinfection or destruction of plants, plant parts and seeds which may be suspected of infection, together with packings, containers and anything which may act as a vehicle of infection ;

(*b*) to prohibit, under the regulations proclaimed by the Chief of the Phytopathological Service, the introduction and transit in the Colony of plants, plant parts and seeds suspected of infection ;

(*c*) to prohibit, under the regulations proclaimed by the Chief of the Phytopathological Service, the foreign exportation of plants, plant parts, seeds and plant products suspected of infection or of carrying germs of infection.

No compensation is payable for damage caused by such disinfection or prohibitory measures.

On the recommendation of the Governor and Plant Protection Committee the Minister for the Colonies may from time to time :—

(*a*) make it compulsory to apply control measures against plant diseases and insect and other plant pests in cases where the efficacy of the control depends on the co-operation of all persons concerned, and decide to carry out such control measures at the expense of defaulters or refractory persons ;

(*b*) establish or modify the list of parasites or diseases which are dangerous or suspected of being dangerous ;

(*c*) prescribe regulations to prevent the spread of or to control diseases.

Owners and any managers of land containing plants infected with diseases or parasites liable to spread may voluntarily form temporary or permanent Syndicates.

The Governor may, when the lack of a Syndicate endangers the agricultural interests in general or in particular instances, make the formation of Syndicates obligatory.

The rules for the constitution, administration and functioning of the Syndicates will be fixed by the regulations for the application of the present Decree.

In exceptional cases when it is thought necessary by reason of the nature and importance of the operations to be effected or the danger to be avoided the Colonial Government may provide the director of the measures for the protection of crops against diseases, insects and other pests with funds to cover as much as half the expenses incurred in the execution of the measures.

The agricultural credit institutions of the Colony are authorised to grant loans to the obligatory Syndicates for proceeding directly to the protection of crops against diseases and pests and for the purchase of the necessary equipment. The Colonial Governments, however, undertake no responsibility in the raising or repayment of loans.

Failure to observe the plant protection measures is punishable by a fine of from one hundred to two thousand liras without prejudice to higher fines under the customs house contreband legislations or penal code.

The regulations for the execution of the present Decree will be approved by order of the Minister for the Colonies (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 15 marzo 1930, ano 71°, n. 62, pp. 967-969).

*** By Ministerial Decree of 11 February 1930 control of the citrus scales has been made obligatory in Sicily and Calabria.

The use of fumigation with hydrocyanic acid in such control has also been made obligatory.

The Ministry of Agriculture and Forests provides for the direction of control measures and carries it out through a General Agent, who may be assisted by local Agents. The duties of the General Agent include also fixing, in consultation with the Plant Disease Committee, the compulsory methods for the control of scale insects in cases where hydrocyanic acid is not considered effective or where on account of the density of the plantations or other cause it is not possible to effect hydrocyanic fumigation.

The Prefects of Sicily and Calabria, on the recommendation of the General Agent, will provide for the formation of obligatory Communal or Intercommunal Control Syndicates (' Consorzî ').

Any expenses connected with the work of the General Agent and the Syndicates, also those incurred in the carrying out of control measures are borne by the members of the Syndicates. The Ministry of Agriculture and Forests will however bear part of the general costs.

The General Agent may amongst other things, at the expense of the exporter, provide for the disinfection of citrus fruits intended for exportation to any foreign country which requires such disinfection before importation. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 26 marzo 1930, anno 71°, n. 72, pp. 1120-1122).

Morocco. — By the ' Dahir ' of 3 August 1929 (27 safar 1348) the International Convention for Plant Protection dated from Rome, 16 April 1929 [see this *Bulletin*, Year III, 1929, No. 4, pp. 50-55] is ratified. (Empire Chérifien. Protectorat de la République Française au Maroc. *Bulletin Officiel*, Rabat, 13 décembre 1929, XVIII[e] année, n° 894, p. 2794).

*** By Residential Decree of 2 December 1929 a permanent Locust Control Committee was formed for the purpose of facilitating co-operation between the various administrative services taking part in the control work ; it examines the programmes of control work and in particular decides the distribution and utilisation of exceptional credit set apart for locust control.

The General Director of Agriculture, Commerce and Colonisation may also consult the Committee on all questions concerning locust control and particularly with regard to the measures to adopt for co-ordinating the activities of public services and private persons to ensure the destruction of locusts. (*Feuille de Renseignements de la Direction Générale de l'Agriculture, du Commerce et de la Colonisation au Maroc*, Casablanca, 15 janvier 1930, 11e année, nº 121, p. 2).

Mexico. — By ' acuerdo ' of 30 May 1929, which came into force the following 20 July, the commerce and sale were strictly prohibited of tubers and fruits attacked by the ' picudo de la papa ' or ' nixtamalillo ' [*Epicaerus cognatus*], by various ' barrenadores ' (borers) of the potato, by the ' mosca mexicana de la fruta ' [*Anastrepha ludens*] and by the ' escama roja ' of the orange [*Chrysomphalus aurantii*].

Tubers and fruits which are put on the market when infested with any of the above parasites will be confiscated and destroyed without compensation. (*Estados Unidos Mexicanos. Secretaría de Agricultura y Fomento. Boletín Mensual, Organo de la Oficina para la Defensa Agrícola*, San Jacinto, D. F., 1929, año III, tomo III, núm. 5, 6, 7 y 8, págs. 165 y 166).

*** In order to prevent introducing into the Republic the diseases of unknown origin known in the United States as Phony Peach Disease, Peach Yellows, Peach Rosette and Little Peach, by the ' cuarentena exterior núm. 10 ', which came into force on 14 August 1929, it was ordered that consignments of plants or parts of plants of peach, nectarine, almond and ' chavacano ' from the United States of America shall be subjected to the following regulations :—

(1) Importers must be previously provided with a permit by the " Oficina Federal para la Defensa Agrícola " ;

(2) Goods must be accompanied by a duly legalised sanitary certificate officially issued by the country of origin stating *inter alia* that the said goods come from a locality free from the diseases specified above and that the packing materials have not been previously used for the same products ;

(3) The ' Oficina ' shall be informed of the arrival of the goods ;

(4) The consignment will be inspected at the post of arrival by inspectors of the ' Oficina ' ;

(5) Unloading will be allowed only at the following places :— Ciudad Juárez, Chih. ; Nuevo Laredo, Tamps. ; Puerto de Veracruz, Ver. (*Estados Unidos Mexicanos. Secretaría de Agricultura y Fomento. Boletín Mensual, Organo de la Oficina para la Defensa Agrícola*, San Jacinto, D. F., 1929, año III, tomo III, núm. 5, 6, 7 y 8, págs. 166 a 168).

New Zealand. — An Order in Council of 11 November, 1929 (Notice No. Ag. 2867) declares the downy mildew of hop (*Pseudoperonospora Humuli*) an additional disease under the Orchard and Garden Diseases Act, 1928, and extends the First Schedule of that Act to include the said disease. (*The New Zealand Gazette*, Wellington, November 14, 1929, Numb. 77, p. 2873).

*** An Order in Council of 11 November, 1929, prohibits, under the Orchard and Garden Diseases Act, 1928, the introduction into New Zealand from any country or place of hop-sets of any variety of hop plant. (*Ibid.*, p. 2876).

*** By special order made by the Coromandel County Council on the 16 December, 1929 and published by the Minister of Agriculture on the 3 January, 1930 (Notice No. Ag. 2877), the plant known as cut-leaved psoralea (*Psoralea pinnata*) is declared to be a noxious weed in the Coromandel county. (*The New Zealand Gazette*, Wellington, January 9, 1930, Numb. 1, p. 19).

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[Dutch, with title and summary also in English].

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NOTES

XIth International Zoological Congress. — This Congress will be held at Padua, Italy from September 4-11, 1930, and will include Sections dealing with entomological and parasitological questions.

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